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DEPARTMENT OF COMMUNITY,
TRADE AND ECONOMIC DEVELOPMENT

2003
Report to the Legislature

Suggested Modifications to Electricity Fuel Mix Disclosure

January 2004

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Report to the Legislature in Accordance with RCW 19.29A.070
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Executive Summary

The Department of Community, Trade, and Economic Development is required to submit a report to the legislature on the electricity fuel mix disclosure process set forth in RCW 19.29A, Consumers of Electricity[1]. The report is to include suggested modifications to the disclosure requirements and an independent third party evaluation of the accuracy and efficiency of CTED's administration of the process. This report provides CTED's suggested modifications to the statute. Also included is an independent third party report by Research Into Action, Inc.'s *Stakeholder Views on Fuel Mix Disclosure Legislation and Evaluation of the Utility Reporting Process*, which includes stakeholders' suggestions for statutory modifications.

The electricity fuel mix disclosure statute is imbedded in a broader consumer disclosure statute in RCW 19.29A. The intent of the statute is to ensure that customers receive basic information about the characteristics associated with their electricity. The legislation declares that there is a need for reliable and accurate information regarding the fuel source of the electricity sold to customers and that the desirability and feasibility of providing such disclosure has been established in nutrition labeling, truth-in-lending, and other consumer information programs.

The electricity fuel mix disclosure statute directs CTED to convene a work group of interested parties to suggest modifications, if any, to the disclosure requirements and to the responsibilities of the electricity information coordinator and to submit these suggestions in a report to the legislature. Based on the feedback from stakeholders indicating their time constraints CTED did not convene a work group but rather hired a third party evaluator to both survey interested parties on proposed changes to the statute as well as to evaluate the role and performance of CTED in implementing the statute. Summarized below are CTED's suggested modifications to the statute and stakeholders responses, as relevant, to these proposed modifications. CTED is not proposing legislation to implement any of these changes during the 2004 legislative session.

1. *Clarify the process by which an electric utility determines which resources they use to serve retail customers. Consider reporting an "average system mix."*
   The need for clarification arose repeatedly from both utilities and stakeholders to ensure that utilities' staffs are interpreting the statute consistently. This would address issues such as line losses as well as long-term power purchases.

2. *Change the utility reporting date from January to April 1st.*
   Sixty-nine percent of the stakeholders supported this change, while twenty-nine percent were neutral.

3. *Clarify the ability of utilities to report green tags that represent power produced within a calendar year, in their resource declarations.*
   Several large Washington utilities purchase green tags for their green power programs, few if any currently purchase green tags for their standard resource mix. It would be useful to have a policy in place before the use of green tags expands.

[1] See Appendix A for statutory reporting requirements

4. *Require small power generators to provide annual production data.*
   Stakeholders were not surveyed on this recommendation, however CTED has found it difficult to obtain data from non-utility small generators.

5. *Implement the recommendation from a national report to legislators to include a chart depicting air emissions for each utility as long as these data are available to the state.*
   Eighteen percent of stakeholders supported this recommendation, twenty-nine percent were neutral, and fifty-three percent opposed it.

6. *Remove the option that permits a utility to report net system mix*.
   When asked their position on keeping the option for utilities to report the net system mix instead of their actual fuel mix, twenty-one percent opposed keeping this option and forty-one percent were neutral. Thirty-nine percent supported keeping this option.

7. *Permit utilities to report fuel types that represent less than 1%, but more than 0.1% of its sales.*
   The statute currently requires rounding to the nearest one percent, which technically precludes utilities from reporting some of their smaller, green power purchases.

Additionally, based on a utility request one question in the survey asked what stakeholder positions were regarding keeping the consumer fuel mix disclosure requirement. The responses were fairly evenly divided with thirty-six percent supporting the requirement, twenty-seven percent indicating they were neutral, and thirty-eight percent opposing the requirement.

The third-party evaluator also surveyed stakeholders on the role of the electricity information coordinator and the performance of CTED and its contractors in fulfilling this role. The attached evaluator's report provides more detail. Table 1 summarizes the overall responses. This indicates that 82%-93% of stakeholders rate CTED's responsiveness, communication and knowledge regarding fuel mix disclosure as good or very good – the two highest ratings available. One utility representative who opposed the entire disclosure process stated, "I don't think anybody should have to do it. Strike the whole thing," went on to note, "CTED is great. If other departments were as good as CTED, you wouldn't hear complaints about the state government."

TABLE 1 QUALITY OF CTED SERVICE AND INFORMATION*

PERFORMANCE OF CTED STAFF	POOR ("1" OR "2")	SATISFACTORY ("3")	GOOD ("4"OR "5")
Responsiveness to Your Questions or Requests (N=43)	2%	5%	93%
Knowledge About Utility Generation and Fuel Mix Issues (N=42)	2%	14%	83%
Communication about the Fuel Mix Disclosure Process (N=45)	4%	13%	82%

**The number of respondents varies somewhat in these questions, as some contacts did not have direct experience with various parts of the process.*

Explanations of these recommendations as well as background on the statute and the third party survey of stakeholders follow in the body and attachments of this report.

Introduction

In an effort to provide retail electricity customers in Washington with reliable and accurate information regarding the fuels that generate their electricity, the state legislature in 2000 passed Engrossed House Bill 2565: An act relating to the disclosure of attributes of electricity products. It amended RCW Chapter 19.29A *Consumers of Electricity*. Based on national studies reviewing consumers' priorities regarding their electricity product[2] and efforts to educate consumers with such tools as nutrition labels, the law directs all retail electric utilities in Washington to annually report – disclose – their resource fuel mix to their retail customers beginning in 2001. Additionally, it named the Department of Community, Trade and Economic Development (CTED) as the default electricity information coordinator and directed CTED to convene a work group of interested parties to suggest modifications, if any, to the disclosure requirements and to the responsibilities of the electricity information coordinator and to submit these suggestions in a report to the legislature by December 2003.

This report and the work that contributed to the development of this report are designed to meet this obligation outlined in RCW 19.29A.070. Included here are an overview of the fuel mix disclosure statute, a general overview of the utility reporting process, an overview of modifications to the statute suggested by CTED as well as by utilities and stakeholders, and results of the third party evaluation of CTED's role as the electricity information coordinator.

General Overview of RCW 19.29A.010

The statute requires most utilities to disclose their resource fuel mix four times a year to their customers. Twice, utilities must report in direct mailings such as a bill insert. Twice, utilities are required to report in some publication to each customer either the disclosure label, or a telephone number to a request a label, or an electronic reference to the label. Additionally, each new customer must receive a label when service is established. Any small utility or mutual light and power company, as defined in statute, must provide the disclosure label annually through some publication that it distributes to all their customers. Retail electric companies that are marketing the sale of a specific electricity product must also include the disclosure label in its materials.

Washington's disclosure label relies on actual historical data from the prior calendar year. In 2003, utilities reported the actual fuel mix from 2002, plus any modifications as allowed by the statute.

The U.S portion of the Northwest Power Pool (U.S. NWPP) was chosen as the boundary for fuel mix analysis because of the interconnected nature of the electricity grid system. This includes all or major portions of the states of Washington, Oregon, Idaho, Utah, Nevada, Montana, Wyoming and a portion of northern California.

The statute permits any utility to report the default fuel mix, which is the U.S. NWPP net system mix that is calculated annually and is provided by CTED to a representative at each utility. Each utility can decide to report its resource purchases and owned resources, or the net system mix, or some combination of these. Any power market purchases that are not contractually tied to a specific generating unit are assigned the net system fuel mix of the U.S. NWPP. (See Table 3.)

The statute outlines the format of the label - two columns and an alphabetically ordered list of fuel types. Any fuel type in the 'other' category that provides more than 2% of the resource mix must be reported; if such a fuel represents less than 2% of the resource mix then the option exists to

[2] *Information Disclosure and Labeling for Electricity Sales: Summary for State Legislatures,* The Regulatory Assistance Project, April 1999; http://www.raponline.org/Pubs/Disclose/stateleg.pdf.

report it as 'other.' In practice, "other fuels" include: diesel, batteries, chemicals, coal breeze, hydrogen, pitch, sulfur, and tar coal, miscellaneous technologies. Though it varies from CTED's interpretation of the statute, occasionally, a utility includes one of the four traditional resources in the 'other' category if it represents less than 2% of the utility's fuel mix.

The utility fuel mix label resembles Table 2 below in format. (This label below approximates the aggregate fuel mix for Washington State based on 2002 electricity production. Table 5 provides more details.)

Table 2 Fuel Mix Label

Generation Type	Percentage
Coal	13%
Hydropower	72%
Natural Gas	9%
Nuclear	5%
Other	1%
Total	100%

Fuel Mix Disclosure Statute

CTED is named as the default "electricity information coordinator" in the statute. After the statute was signed into law, CTED worked with stakeholders to select an electricity information coordinator. The stakeholders' first choice was the Northwest Power and Conservation Council; the Council rejected the offer to serve in this capacity. The stakeholders did not propose another entity and instead agreed that CTED should fill the role.

The electricity information coordinator is responsible to annually:

1. compile actual electricity generation by fuel mix in the NWPP by calendar year;
2. compile the amount of electricity from declared resources as provided by utilities;
3. collect supporting documentation from retail utilities, as needed, to confirm individual utility claims on specific generating facilities;
4. coordinate with comparable organizations in the western interconnection;
5. calculate the net system mix by deducting utility claims, plant use, and exports from the gross U.S. NWPP reported generation; and,
6. to the extent information is available, verify that the quantity of electricity associated with the declared resources does not exceed the available generation from those resources.

Table 3 U.S. NWPP Net System Mix 2002

Fuel	Percent
Biomass	0.85%
Coal	39.53%
Hydro	49.19%
Landfill Gases	0.01%
Natural Gas	6.45%
Nuclear	3.68%
Other	0.12%
Petroleum	0.09%
Waste	0.10%
Total	100.00%

The net system fuel mix (see Table 3) is a necessary piece of data to all but one utility in the state. This fuel mix is assigned to any market purchase that is not specifically tied to a generating facility. This is also the default fuel mix that the legislation permits any utility to report to its customers in lieu of calculating their utility's actual fuel mix. Statutorily, this is CTED's only deliverable to the utilities. However, since the utilities were required to provide the agency with data on their declared resources CTED streamlined the process by designing a database and software system that collected data from utilities and in turn, calculated both the net system mix as well as each utility's fuel mix report for the utility's use. CTED hired contract staff with Washington State University to develop a database of generating units in the U.S. NWPP, create a web-based reporting system for utilities, and develop a software program that calculated the net system mix and each utility's fuel mix report. See Appendix B for the data that are included in CTED's report to each utility (includes a fuel mix report and copy of data as reported by the utility submitter.)

CTED's ability to facilitate this process is entirely dependent upon the availability of data from the federal Energy Information Administration. Should this federal agency discontinue collecting and providing data then CTED would become unable to implement this fuel mix disclosure process.

Stakeholder Survey

CTED sponsored a stakeholder meeting on the fuel mix disclosure process in late fall of 2002 to discuss issues that might be addressed in this report and to answer any questions about implementation of the fuel mix disclosure process. In June 2003 CTED staff initiated an effort to form a work group of interested stakeholders to review the fuel mix disclosure process and statute as directed by the legislation. A very small group of stakeholders originally indicated a willingness to participate. However, when it became apparent that no more than 1-2 stakeholders could or would participate in a work group process CTED hired a third party evaluator to not only evaluate CTED's performance as the default electricity information coordinator but to also survey stakeholders on the legislation and on process issues related to fuel mix disclosure.

The evaluators' report, *Stakeholder Views on Fuel Mix Disclosure Legislation and Evaluation of the Utility Reporting Process*, included as Appendix C, summarizes the survey of stakeholders' views on the current legislation, proposed changes to the legislation, and the role and performance of CTED as the electricity system coordinator. CTED staff and stakeholders proposed the questions included in the survey. Following below are CTED's suggested modifications to the statute.

CTED's Suggestions for Modifying the Statute

1. Clarify the process by which a utility determines which resources they use to serve retail customers. Consider reporting an "average system mix."

Washington utilities buy and sell power daily and are very dependent on intermittent hydropower resources. Collectively, the state needs to establish a consistent methodology for utilities to calculate their inputs to CTED including: what length of power contract to include in reports, how to account for line losses, and how to account for seasonal shaping with the hydropower system.

The statute reads, "Each retail supplier shall disclose the fuel mix of each electricity product it offers to retail electric customers." This indicates that a utility will know the quantity of power from resources it owns, operates, or purchases which is used to serve its own retail customers. It assumes that the utility will not make claims on resources it owns that produce power for sale to wholesale customers or markets. Many utilities frequently make claims on all the power produced

by facilities they own regardless of whether some of their output is sold into wholesale markets.

It would generally be more useful and accurate for utilities to report their "average system mix." The average system mix is the total of all long-term power resources that the utility purchases, owns, or operates pro-rated by the proportion of this total that is needed to serve its retail customers' loads. Long-term may mean the purchase exceeds 24 months; a definition is needed for long-term and short-term resources for this purpose. This approach would be more consistent with approaches implemented in tracking and trading carbon. This would improve the accuracy of what several utilities are currently doing – relying first on the facilities they own and claiming all the output from those facilities regardless of whether the power is for their own retail customers or the wholesale market.

2. Change the utility reporting date from January to April 1st.

The utilities have not compiled their final annual power reports by January 1st each year. Utilities must submit much of the same data to the federal government by May 1st. CTED relies heavily on separate federal data to establish each generating facility's annual megawatt-hour output. These data have never been available before March 30th. Therefore, there is little reason to push the utilities to supply these data to the state sooner than April 1st.

3. Clarify the ability of utilities to report green tags that represent power produced within a calendar year, in their resource declarations.

Green tags are a type of currency used in the electricity industry to represent the environmental and social benefits of clean electricity production. They are also sometimes called "renewable energy credits." A green tag with the environmental attributes of a renewable resource is separated from the electricity produced and is sold as a distinct product. One product is unlabeled electricity; the other product, the green tag, represents the environmental attributes equivalent to the amount of renewable electricity produced.[3]

Currently, the statute is silent on the use of green tags in the fuel mix disclosure process. Philosophically, CTED supports reporting the equivalent power from green tags on the original renewable power generating unit that produced the green tags. Once the environmental attributes of green power are sold for a specific facility's output then the actual output from the facility would have the fuel mix of the net system mix. This is the same fuel mix that is assigned to all non-resource specific market purchases. Practically speaking, CTED supports the use of green tags that are affiliated with electricity production for a specified calendar year. If green tags are used, then the sellers of qualifying green tags would need to share an audit report with the electricity information coordinator that indicates the source of power for the tags.

At this time, we do not recommend the use of green tags that are affiliated with electricity production over a period that exceeds a calendar year. Many green tags, including certified green tags, are connected to power produced over a 20-month period. This makes the electricity system coordinator's responsibility, for verifying that the quantity of electricity associated with the declared resources does not exceed the available generation from those sources (RCW 19.29A.080 (6c), prohibitively difficult and expensive

4. Require small power generators to provide annual production data.

[3] *Green Power Programs in Washington: A Report to the Legislature.* December 2003, Washington Department of Community, Trade and Economic Development and the Washington Utilities and Transportation Commission.

It has been impossible to collect data from non-utility power generators smaller than 50 MW in a timely fashion. The federal government either does not collect these data or they are not available for sixteen to eighteen months after the relevant calendar year. Generators are reluctant to separately provide these data to the state. The legislature could consider a requirement that utilities may only make claims on small renewable generators (or other small generators) that provide annual production data to the electricity information coordinator.

5. Implement the recommendation from a national report to legislators to include a chart depicting air emissions for each utility as long as these data are available to the state.

The National Conference of State Legislatures, the National Association of Regulatory Utility Commissions, the National Association of State Energy Offices and the Federal Energy Regulatory Commission jointly founded the National Council on Competition and the Electricity Industry (National Council) in 1994 as an effort to facilitate collaboration and to better protect consumer interests in the midst of electricity restructuring. The National Council funded research into what information electricity consumers want and how to convey it to consumers. One of the findings addressed fuel content and fuel emissions. "Consumers want a variety of information, including environmental characteristics, price and consumer protection provisions upon which to base their choice of supplier…Fuel or resource mix and air emissions are critical environmental attributes. Consumers understand they do not represent the same thing and want to see both pieces of information."[4]

Washington's *Consumers of Electricity* statute includes provisions for both consumer protection and fuel mix disclosures; it does not include air emissions data. The state currently has access to emissions data from the Environmental Protection Agency's E-grid database and from the Department of Ecology. The four emissions that could be included in fuel mix reports at this time are: carbon dioxide, sulfur dioxide, nitrogen oxides, and mercury. As an example, Table 4 below provides the emissions for the gross output of the U.S. portion of the Northwest Power Pool (NWPP).

Table 4 2002 Emissions for Gross NWPP (U.S. Only)

CO2	103,264,858	Tons
SO2	180,371	Tons
NOx	194,374	Tons
Mercury (Hg)	2,911	Pounds

A modification to the statute is necessary to either permit utilities or direct utilities to include air emissions data in their reports to consumers.

6. Remove the option that permits a utility to report net system mix (RCW 19.29A.10 (23).

CTED is aware of only one utility that uses this option. Eliminating the option for utilities to report net system mix would improve the accuracy and credibility of the fuel mix label for the customers of that utility that currently reports net system mix. Twenty-one percent of stakeholders surveyed supported eliminating this option while forty-one percent were neutral. See page five of attached report on stakeholder views for more input on this recommendation.

[4] *Information Disclosure and Labeling for Electricity Sales: Summary for State Legislatures,* pg. 8, The Regulatory Assistance Project, April 1999; http://www.raponline.org/Pubs/Disclose/stateleg.pdf.

7. Permit utilities to report fuel types that represent less than 1%, but more than 0.1% of its sales.

Currently, the statute requires that utilities round to the nearest 1% (RCW 19.29A.060 (7). However, it is frequently a utility's investments in renewable resources such as wind or landfill gas that the utility would like to convey to its customers. These initial investments frequently represent less than 1% of the utility's total retail sales. Amending the statute would provide greater flexibility to the utility to report these smaller percentages of fuel mix. As an example, Table 5 below is the aggregate fuel mix for Washington conveyed in one-tenths of one percent. (This chart does not include data for direct market sales to large industrial customers.)

Table 5 2002 Washington Electricity Fuel Mix

Fuel	Total MWhs	Percent
Biomass	401,339.35	0.5%
Coal	10,498,764.49	13.5%
Cogeneration	3,971,750.92	5.1%
Hydro	55,796,455.14	71.6%
Landfill Gases	220,804.57	0.3%
Natural Gas	2,703,929.03	3.5%
Nuclear	3,897,749.90	5.0%
Other	233,994.81	0.3%
Petroleum	23,112.47	0.0%
Waste	24,502.51	0.0%
Wind	163,134.48	0.2%

Appendix A

RCW 19.29A.070 Actions required by the department – Convene work group – Report to Legislature

The department shall:

(1) Convene a work group of interested parties to suggest modifications, if any, to the disclosure requirements required in RCW 19.29A.060 to improve information content, readability, and consumer understanding, and to suggest modifications, if any, to the responsibilities of the electricity information coordinator required in RCW 19.29A.080 to improve the accuracy and efficiency of the tracking process. If the department serves as the electricity information coordinator, these evaluation and reporting requirements relative to the responsibilities of the electricity information coordinator and the tracking process shall be assigned to an independent third party.

(2) Invite interested parties, including but not limited to representatives from investor-owned utilities, consumer-owned utilities, the commission, the attorney general's office, consumer advocacy groups, and the environmental community to participate in the work group convened in subsection (1) of this section; and

(3) Submit to the legislature no later than December 1, 2003, a report with suggested modifications, if any, to the disclosure requirements and responsibilities of the electricity information coordinator, as referred to in subsection (1) of this section.

Appendix B

Appendix B is a copy of Snohomish PUD's fuel mix disclosure data documentation report. CTED provides one to each electric utility in the state. Utility provides claims or declarations of megawatt-hours on specific generators, market purchases, BPA resource mix, or BPA slice. CTED and its contractors calculate the rest of the data. CTED imports annual electricity production data for each generating unit from the federal Energy Information Administration.

PUD No 1 of Snohomish County

2003 Fuel Mix

Biomass	0.25%
Coal	1.29%
Hydro	87.67%
Landfill Gases	0.71%
Natural Gas	0.21%
Nuclear	9.86%
Total	100.00%

PUD No 1 of Snohomish County

Fuel Mix Calculations

Fuel	MWh from Market Purchases*	MWh from Claims On Resources*	Total	Percent
Biomass	1,451.750	14,331.495	15,783.244	0.25%
Coal	79,882.490	0.000	79,882.490	1.29%
Cogeneration	0.000	0.000	0.000	0.00%
Geothermal	0.000	0.000	0.000	0.00%
Hydro	104,353.421	5,327,048.589	5,431,402.009	87.67%
Landfill Gases	19.154	43,800.000	43,819.154	0.71%
Natural Gas	12,925.234	0.000	12,925.234	0.21%
Nuclear	6,320.558	604,268.114	610,588.672	9.86%
Other	232.040	0.000	232.040	0.00%
Petroleum	167.019	0.000	167.019	0.00%
Solar	0.000	0.000	0.000	0.00%
Waste	167.251	0.000	167.251	0.00%
Wind	0.000	1.147	1.147	0.00%
Total	205,518.916	5,989,449.345	6,194,968.261	100.00%

*MWh from Market Purchases includes that part of any claims on BPA power that corresponds to the percent of BPA's electricity product that is comprised of market power. MWh from Claims on Resources includes any claims on specific facilities and that part of any claims on BPA power that corresponds to the percent of BPA's electricity product that is comprised of power from specific facilities.

PUD No 1 of Snohomish County

Claims On Plants

H M Jackson	**Claim Type: PIntMix**	**452,694.720**
	Water	452,694.720
Roosevelt Biogas 1	**Claim Type: PIntMix**	**43,800.000**
	Landfill Gases	43,800.000

PUD No 1 of Snohomish County

Claims On BPA*

BPA Resource Mix		**2,350,289.084**
	Biomass	6,369.762
	Nuclear	268,572.400
	Water	2,075,345.775
	Wind	1.147
BPA Slice		**3,142,665.541**
	Biomass	7,961.733
	Nuclear	335,695.714
	Water	2,799,008.094

*Includes that part of claims on BPA electricity products that correspond to the percentage of BPA's power that comes from specific generating facilities. That part of claims on BPA electricity products that correspond to the percentage of BPA's power that comes from market purchases is included in the 'Market Purchases' table.

PUD No 1 of Snohomish County

Market Purchases

Total Market Purchases		**205,518.916**
	BPA Market Purchase*	205,518.916

*Listings for 'BPA Market Purchases' correspond to that part of any claims on BPA electricity product that is comprised of market purchases made by BPA.

See Appendix C: Stakeholder Views on Fuel Mix Disclosure Legislation and Evaluation of the Utility Reporting Process